AUTHOR INDEX TO VOLUME 7

Alekseev, N. V., U. R. Arifkhanov, N. A. Vlasov, V. V. Davydov, and L. N. Samoĭlov, Sources of Polarized Fast Neutrons — 619.

Alekseevskiĭ, N. E., Petr Leonidovich Kapitza (On the occasion of his seventieth birthday) — 629.

Amstislavskiĭ, Ya. E., Experiments on Fresnel Diffraction by a Narrow Transparent Ring in an Opaque Screen Screen — 51.

Amstislavskiĭ, Ya. E., Lecture Demonstration of Young's Experiment — 617.

Anufriev Yu. D. and A. Ya. Parshin, Tenth All-union Conference on Low Temperature Physics — 468.

Arifkhanov, U. R. (see Alekseev, N. V.) — 619.

Arutyunyan, F. R. and V. A. Tumanyan, Quasi-monochromatic and Polarized High-energy Gamma Rays — 339.

Baĭbulatov, F. Kh., Demonstration of the Doppler Effect in Acoustics — 889.

Baranskiĭ, K. N., V. A. Kozhatkin, and V. N. Vadkovskiĭ, New Demonstrations for a Course in Electricity — 889.

Belov, K. P., R. Z. Levitin, and S. A. Nikitin, Ferromagnetism and Antiferrogmagnetism of Rare-earth Metals — 179.

Bessonov, M. I., Mechanical Failure of Solid Polymers — 401.

Bilen'kiĭ, S. M., L. I. Lapidus, and R. M. Ryndin, Polarized Proton Targets in Experiments with High-energy Particles — 721.

Bobovich, Ya. S., Modern Technical Means and Methods of Studying Raman Spectra — 656.

Bogomolova, L. D., V. N. Lazukin, and I. V. Chepeleva, Electron Paramagnetic Resonance in Silicon and Germanium — 508.

Borisova, T. I. (see Mikhaĭlov, G. P.) — 375.

Bresler, S. E., Some Problems of Molecular Biology and Physics — 789

Charakhch'yan, A. N., Investigation of Stratosphere Cosmic Ray Intensity Fluctuations Induced by Processes on the Sun — 358.

Chepeleva, I. V. (see Bogomolova, L. D.) — 508.

Chernavskiĭ, D. S. (see Feĭnberg, E. L.) — 1.

Davydov, A. S., The Theory of Molecular Excitons — 145.

Davydov, V. V. (see Alekseev, N. V.) — 619.

Divari, N. B., Zodiacal Light — 681.

Dobrotin, N. A., Pavel Alekseevich Cerenkov (On his sixtieth birthday) — 881.

Éskin, V. E., Light Scattering as a Method of Studying Polymers — 270.

Éstulin, I. V. and A. A. Petushkov, The Circular Polarization of γ-Ray Quanta Emitted by Atomic Nuclei Subsequent to β Decay — 101.

Farztdinov, M. M., Structure of Antiferromagnets — 855.

Fedorenko, A. I. (see Garber, R. I.) — 479.

Feĭnberg, E. L. and D. S. Chernavskiĭ, Strong Interactions at Very High Energy — 1.

Fock, V. A., Galileo's Principles of Mechanics and Einstein's Theory — 592.

Fradkin, M. I. (see Ginzburg, V. L.) — 230.

Frank-Kamenetskiĭ, D. A. (see Smorodinskiĭ, Ya. A) — 332.

Garber, R. I. and A. I. Fedorenko, Focusing of Atomic Collisions in Crystals — 479.

Ginzburg, V. L., L. V. Kurnosova, L. A. Razorenov, and M. I. Fradkin, Soviet Satellite and Rocket Investigations of Nuclear Component of Cosmic Rays — 230.

Ginzburg, V. L. and S. I. Syrovat-skiĭ, Some Problems of Gamma and X-ray Astronomy — 696.

Gramenitskiĭ, I. M., V. M. Maksimenko, and A. I. Mukhin, Ninth International Conference on High Energy Physics — 457.

Gribkovskiĭ, V. P. (see Stepanov, B. I.) — 68.

Gurevich, I. I. and B. A. Nikol'skiĭ, Neutral K Mesons — 55.

Ivanenko D. and Yu. Lomsadze, Conference on the Theory of Elementary Particles — 462.

Katsenelenbaum, B. Z., Quasioptical Methods of Generation and Transmission of Millimeter Waves — 385.

Khomenko, V. I. (see Kirillov, V. A.) — 54.

Kirillov, V. A., V. I. Tverdokhlebov, and V. I. Khomenko, Demonstration Experiment With a Zone Plate — 54.

Klassen-Neklyudova, M. V., All-union Conference on Dislocations and Mechanical Properties of Crystals — 755.

Kosevich, A. M., Dynamical Theory of Dislocations — 837.

Kotov, V. I. (see Vagin, V. A.) — 305.

Kozhatkin, V. A. (see Baranskiĭ, K. N.) — 889.

Kozlova, A. N. (see Malov, N. N.) — 884.

Kudu, K. F., A High-frequency Demonstration Indicator of Radiation — 331.

Kurnosova, L. V. (see Ginzburg, V. L.) — 230.

Lapidus, L. I. (see Bilen'kiĭ, S. M.) — 721.

Lazukin, V. N. (see Bogomolova, L. D.) — 508.

Leonas, V. B., The Present State and Some New Results of the Molecular-beam Method — 121.

Leontovich, M. A., Evolution of the Concepts of Magnetic and Electric Lines of Force — 877.

Levitin, R. Z. (see Belov, K. P.) — 179.

Lifshitz, I. M., Energy Spectrum Structure and Quantum States of Disordered Condensed Systems — 549.

Lomsadze, Yu. (see Ivanenko, D.) — 462.

Maksimenko, V. M. (see Gramenitskiĭ, I. M.) — 457.

Malov, N. N. and A. N. Kozlova, New Demonstrations in Physics — 884.

Marochnik, L. S., Magnetohydrodynamic Phenomena in Comets and Their Connection with Geoactive Currents — 80.

Mel'nikov, O. A., Vladimir Pavlovich Linnik (On the occasion of his seventy-fifth birthday and the completion of fifty years of scientific work) — 760.

Mikhaĭlov, G. P. and T. I. Borisova, Molecular Motion in Polymers — 375.

Molchanov, A. G., Experimental Verification of the Postulates of the Spectral Theory of Relativity — 626.

Mukhin, A. I. (see Gramenitskiĭ, I. M.) — 457.

Nikitin, S. A. (see Belov, K. P.) — 179.

Nikol'skiĭ, B. A. (see Gurevich, I. I.) — 55.

Novikov, I. D. (see Zel'dovich, Ya. B.) — 763.

Parshin, A. Ya. (see Anufriev, Yu. D.) — 468.

Perkal'skis, B. Sh., A Lummer-Gehrcke Plate for Instructional Purposes — 330.

Petushkov, A. A. (see Éstulin, I. V.) — 101.

Rashba, É. I., Combined Resonance in Semiconductors — 823.

Razorenov, L. A. (see Ginzburg, V. L.) — 230.

Rukhadze, A. A. and V. P. Silin, Method of Geometrical Optics in the Electrodynamics of an Inhomogeneous Plasma — 209.

Ryndin, R. M. (see Bilen'kiĭ, S. M.) — 721.

Samoĭlov, L. N. (see Alekseev, N. V.) — 619.
Semenyushkin, I. N. (see Vagin, V. A.) — 305.
Serkov, V. V., A Hall Effect Problem (The Galvanomagnetic Parodox) — 49.
Shmidt, V. V., Behavior of Superconductors in a Decreasing Magnetic Field — 758.
Shuvalov, I. K. (see Zubov, V. A.) — 419.
Silin, V. P. (see Rukhadze, A. A.) — 209.
Sinitsyn, E. N. (see Skripov, V. P.) — 887.
Skripov, V. P. and E. N. Sinitsyn, Experiments with a Superheated Liquid — 887.
Smorodinskiĭ, Ya. A., The Unitary Symmetry of Elementary Particles — 637.
Smorodinskiĭ, Ya. A. and D. A. Frank-Kamenetskiĭ, Yakov Borisovich Zel'dovich — 332.
Stepanov, B. I. and V. P. Gribkovskiĭ, Application of the Statistical Method to Calculation of the Optical Properties of Lasers — 68.
Sushchinskiĭ, M. M. (see Zubov, V. A.) — 419.
Syrovat-skiĭ, S. I. (see Ginzburg, V. L.) — 696.
Terminasov, Yu. S. and L. V. Tuzov, Double Reflections of X Rays in Crystals — 434.
Tikhonov, V. I., Effect of Fluctuations on the Operating Accuracy of Synchronization Equipment. (T) — 574.
Tumanyan, V. A. (see Arutyunyan, F. R.) — 339.
Tuzov, L. V. (see Terminasov, Yu. S.) — 434.
Tverdokhlebov, V. I. (see Kirillov, V. A.) — 54.
Vadkovskii, V. N. (see Baranskiĭ, K. N.) - 889.
Vagin, V. A., V. I. Kotov, and I. N. Semenyushkin, Methods of High-energy Particle Separation — 305.
Vavilov, S. I., Galileo in the History of Optics — 596.
Vavilov, V. S., The Nature and Energy Spectrum of Radiation Defects in Semiconductors — 797.
Vedenov, A. A., Solid State Plasma — 809.
Vlasov, N. A., (see Alekseev, N. V.) — 619.
Vlasov, V., Lenin Prizes for 1964 — 478
Zel'dovich, Ya. B. and I. D. Novikov, Relativistic Astrophysics. I — 763.
Zubov, V. A., M. M. Sushchinskiĭ, and I. K. Shuvalov, Stimulated Raman Scattering of Light — 419.

ANALYTIC SUBJECT INDEX TO VOLUME 7

Astrophysics
Biophysics
Cosmic Radiation
Crystalline State
Elementary Particle Interactions
Gamma Rays
History of Physics
Lecture Demonstrations
Meetings and Conferences
Metals
Methods and Instrumentation
Microwaves and Communication
Personalia
Plasma
Polymers
Quantum Generators and Amplifiers
Relativity and Cosmology
Statistical Physics
Superconductivity

Astrophysics

Magnetohydrodynamic Phenomena in Comets and Their Connection with Geoactive Currents. L. S. Marochnik — 80.
Zodiacal Light. N. B. Divari — 681.
Some Problems of Gamma and X-ray Astronomy. V. L. Ginzburg and S. I. Syrovat-skiĭ — 696.
Relativistic Astrophysics. I. Ya. B. Zel'dovich and I. D. Novikov — 763.

Biophysics

Some Problems of Molecular Biology and Physics. S. E. Bresler — 789.

Cosmic Radiation

Soviet Satellite and Rocket Investigations of the Nuclear Component of Cosmic Rays. V. L. Ginzburg, L. V. Kurnosova, L. A. Razorenov, and M. I. Fradkin — 230.
Investigation of Stratosphere Cosmic Ray Intensity Fluctuactions Induced by Processes on the Sun. A. N. Charakhch'yan — 358.

Crystalline State

The Theory of Molecular Excitations. A. S. Davydov — 145.
Double Reflections of X Rays in Crystals. Yu. S. Terminasov and L. V. Tuzov — 434.
Focusing of Atomic Collisions in Crystals. R. I. Garber and A. I. Fedorenko — 479.
Electron Paramagnetic Resonance in Silicon and Germanium. L. D. Bogomolova, V. N. Lazukin, and I. V. Chepeleva— 508.
The Nature and Energy Spectrum of Radiation Defects in Semiconductors. V. S. Vavilov — 797.
Combined Resonance in Semiconductors. É. I. Rashba — 823.
Dynamical Theory of Dislocations. A. M. Kosevich — 837.
Structure of Antiferromagnets. M. M. Farztdinov — 855.

Elementary Particle Interaction

Strong Interactions at Very High Energy. E. L. Feĭnberg and D. S. Chernavskiĭ— 1
Neutral K Mesons. I. I. Gurevich and B. A. Nikol'skiĭ— 55.
The Unitary Symmetry of Elementary Particles. Ya. A. Smorodinskiĭ — 637.
Polarized Proton Target in Experiments with High-energy Particles. S. M. Bilen'kiĭ, L. I. Lapidus, and R. M. Ryndin — 721.

Gamma Rays

The Circular Polarization of γ-Ray Quanta Emitted by Atomic Nuclei Subsequent to β Decay. I. V. Éstulin and A. A. Petushkov — 101.
Quasi-monochromatic and Polarized High-energy Gamma Rays — F. R. Arutyunyan and V. A. Tumanyan — 339.

History of Physics

Galileo's Principles of Mechanics and Einstein's Theory. V. A. Fock — 592.
Galileo in the History of Optics. S. I. Vavilov — 596.
Evolution of the Concepts of Magnetic and Electric Lines of Force. M. A. Leontovich — 877.

Lecture Demonstrations

A Hall Effect Problem (The Galvanomagnetic Paradox). V. V. Serkov — 49.
Experiments on Fresnel Diffraction by a Narrow Transparent Ring in an Opaque Screen. Ya. E. Amstislavskiĭ — 51.
Demonstration Experiment With a Zone Plate. V. A. Kirillov, V. I. Tverdokhlebov, and V. I. Khomenko — 54.
A Lummer-Gehrcke Plate for Instructional Purposes. B. Sh. Perkal'skis — 330.
A High-frequency Demonstration Indicator of Radiation. K. F. Kudu — 331.
Lecture Demonstration of Young's Experiment. Ya. E. Amstislavskiĭ — 617.
New Demonstrations in Physics. N. N. Malov and A. N. Kozlova — 884.
Experiments with a Superheated Liquid. V. P. Skripov and E. N. Sinitsyn — 887.
Demonstration of the Doppler Effect in Acoustics. F. Kh. Baĭbulatov — 889.
New Demonstrations for a Course in Electricity. K. N. Baranskiĭ, V. A. Kozhatkin, and V. N. Vadkovskiĭ — 889.

Meetings and Conferences

Ninth International Conference on High Energy Physics. I. M. Gramenitskiĭ, V. M. Maksimenko, and A. I. Mukhin — 457.
Conference on the Theory of Elementary Particles. D. Ivanenko and Yu. Lomsadze — 462.
Tenth All-union Conference on Low Temperature Physics. Yu. D. Anufriev and A. Ya. Parshin — 468.
All-union Conference on Dislocations and Mechanical Properties of Crystals. M. V. Klassen-Neklyudova — 755.

Metals

Ferromagnetism and Antiferromagnetism of Rare-earth Metals. K. P. Belov, R. Z. Levitin, and S. A. Nikitin — 179.

Methods and Instrumentation

The Present State and Some New Results of the Molecular-beam Method. V. B. Leonas — 121.

Methods of High-energy Particle Separation. V. A. Vagin, V. I. Kotov, and I. N. Semenyushkin — 305.

Sources of Polarized Fast Neutrons. N. V. Alekseev, U. R. Arifkhanov, N. A. Vlasov, V. V. Davydov, and L. N. Samoĭlov — 619.

Modern Technical Means and Methods of Studying Raman Spectra. Ya. S. Bobovich — 656.

Microwaves and Communication

Quasioptical Methods of Generation and Transmission of Millimeter Waves. B. Z. Katsenelenbaum — 385.

Effect of Fluctuations on the Operating Accuracy of Synchronization Equipment. V. I. Tikhonov — 574.

Personalia

Yakov Borisovich Zel'dovich. Ya. A. Smorodinskiĭ and D. A. Frank-Kamenetskiĭ — 332.

Lenin Prizes for 1964. V. Vlasov — 478.

Petr Leonidovich Kapitza (On the occasion of his seventieth birthday). N. E. Alekseevskiĭ — 629

Vladimir Pavlovich Linnik (On the occasion of his seventy-fifth birthday and the completion of fifty years of scientific work). O. A. Mel'nikov — 760.

Pavel Alekseevich Cerenkov (On his sixtieth birthday). N. A. Dobrotin — 881.

Plasma

Method of Geometrical Optics in the Electrodynamics of an Inhomogeneous Plasma. A. A. Rukhadze and V. P. Silin — 209.

Solid State Plasma. A. A. Vedenov — 809.

Polymers

Light Scattering as a Method of Studying Polymers. V. E. Éskin — 270.

Molecular Motion in Polymers. G. P. Mikhaĭlov and T. I. Borisova — 375.

Mechanical Failure of Solid Polymers. M. I. Bessonov — 401.

Quantum Generators and Amplifiers

Application of the Statistical Method to Calculation of the Optical Properties of Lasers. B. I. Stepanov and V. P. Gribkovskiĭ — 68.

Stimulated Raman Scattering of Light. V. A. Zubov, M. M. Sushchinskiĭ, and I. K. Shuvalov — 419.

Relativity and Cosmology

Experimental Verification of the Postulates of the Spectral Theory of Relativity. A. G. Molchanov — 626.

Statistical Physics

Energy Spectrum Structure and Quantum States of Disordered Condensed Systems. I. M. Lifshitz — 549.

Superconductivity

Behavior of Superconductors in a Decreasing Magnetic Field. V. V. Shmidt — 758.